

POND SEALING OR LINING

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Codes 521 A, B, C, D



POND SEALING OR LINING

Pond sealing or lining is the installation of a liner for a pond or waste impoundment consisting of a compacted soil-dispersant mixture, soil-bentonite mixture, compacted clay, or a continuous synthetic flexible material.

PRACTICE INFORMATION

The purpose of this practice is to control seepage from water and waste impoundments for the purposes of water conservation and environmental protection.

This practice applies on ponds and waste storage structures that require treatment to control seepage rates within acceptable limits and to prevent the migration of contaminants offsite. Select soil materials will be used as cover for liners where required for proper performance, protection, and durability of the installation. Sub-grade materials must not contain sharp, angular stones or any objects that could damage the liner or adversely impact its function.

COMMON ASSOCIATED PRACTICES

Pond Sealing or Lining is commonly used in a Conservation Management System with the following practices:

- Irrigation Reservoir (436)
- Pond (378)
- Waste Storage Facility (313)
- Waste Treatment Lagoon (359)
- Nutrient Management (590)
- Waste Treatment (629)
- Irrigation Water Management (449)

For further information, refer to the practice standard in the local Field Office Technical Guide and associated practice specifications and job sheets.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

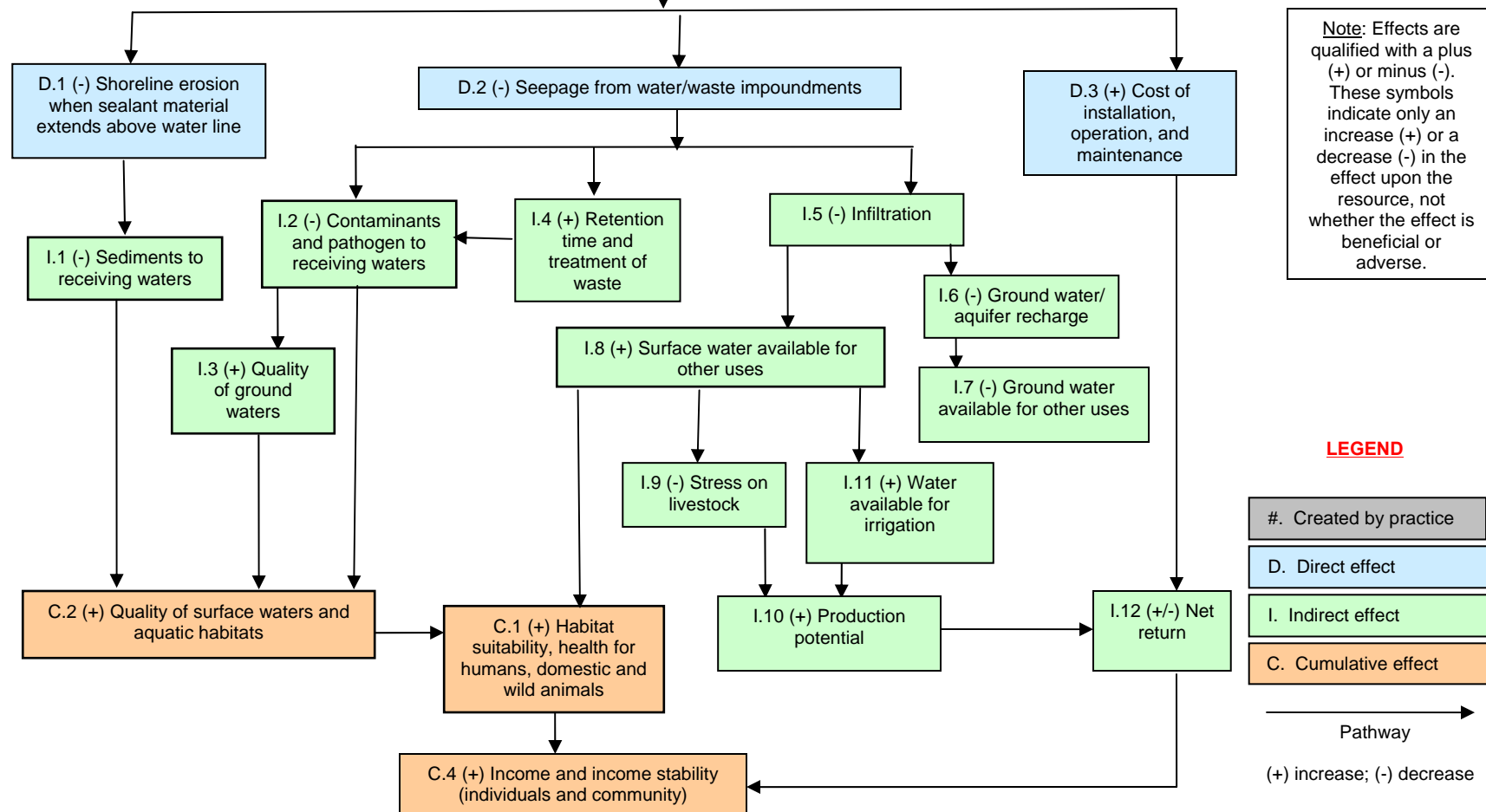
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Pond Sealing or Lining - Flexible Membrane, Soil Dispersant, Bentonite Sealant, or Compacted Clay (521A, 521B, 521C, 521D)

*Initial setting: Water or waste
impoundment is established
and needs to be sealed to
control seepage*

Start

1. Hydraulic barrier (consisting of a functionally continuous sheet of synthetic or partially synthetic, flexible material, compacted bentonite sealant, compacted clay or a soil dispersant) installed in the bottom of a pond or waste impoundment



The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowners and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.